

REMARKS

Applicant respectfully requests reconsideration of the present application in view of this response. Claims 1-15 are currently pending, with claims 1 and 10 being amended, claim 16 being withdrawn and claim 17 being cancelled without prejudice or disclaimer of the subject matter contained therein. Claims 1, 10, and 16 are independent claims.

INFORMATION DISCLOSURE STATEMENTS

Applicant acknowledges and thanks the Examiner for the careful consideration of all of the references cited in the Information Disclosure Statements filed October 11, 2002 and June 3, 2003, as indicated by the Examiner's initials and signature on the forms PTO-1449.

DRAWING OBJECTIONS

On page 2 of the outstanding Office Action, the Examiner has objected to the drawings under 37 CFR 1.83(a). The Examiner alleges that the "analogue-to-digital converter" in claims 4 and 5 must be shown or the features cancelled from the claims. This objection is respectfully traversed. Further, as Applicant does not believe that further drawing corrections are necessary, no further drawings and/or drawing corrections have been submitted.

Applicant respectfully submits that all necessary features of the invention set forth in the various claims are already illustrated in the

Figures. For example, FIG. 1 illustrates an example embodiment of a control module, according to the present invention, including, for example, user operable control members 101-103 and an integrated circuit 104. The integrated circuit 104 may further include a multiplexing unit. Thus, Fig. 1 provides an example-non-limiting structure for various corresponding elements of claim 1.

The various dependent claims objected to by the Examiner further clarify types of, for example, arrangements of the control module including an analogue-to-digital converter. Although the various dependent claims set forth more specific types of operation and/or arrangement, claims 4 and 5 are proper dependent claims because support for their corresponding structure **is already set forth in connection with the control module itself**. Thus, **additional drawing figures are not necessary**.

Finally, 35 U.S.C. § 113 indicates that the Applicants shall furnish a drawing **where necessary for the understanding of the subject matter to be patented**. Applicant believes that with regard to the various dependent claims (4 and 5) indicated by the Examiner, further drawings are not necessary to understand these various aspects of the invention. As long as the structure of the various circuits is illustrated, as is done in Fig. 1 for example, the various specific aspects of operation and/or arrangement of the control module do not need further illustration for an adequate understanding of the application.

Accordingly, withdrawal of the Examiner's drawing objections is respectfully requested.

ELECTION/RESTRICTION

Applicant acknowledges the Examiner's withdrawal of claim 16, as required by the Election/Restriction issued by the Examiner. However, Applicant respectfully submits that pending claims 1-15 should not be unnecessarily limited by the Election/Restriction issued by the Examiner.

On page 3 of the outstanding Office Action, the Examiner groups the previously pending claims as follows:

Group I: Claims 1-15 and 17, control module for a mobile phone, classified in class 455, subclass 550.1; and

Group II: Claim 16, drawn to a hearing aid, classified in class 381, subclass 312.

However, pending claim 1 recites "a control module for a mobile unit", and not "mobile phone", and thus should not be unnecessarily limited to the term "mobile phone", as alleged by the Examiner. As discussed in the specification, the mobile unit may be (but not limited to), for example, a hearing aid, a cellular phone, a personal digital assistant, etc. Further, the pending claims should be interpreted solely by the limitations present therein and should not be limited by arguments set

forth in any other independent claims nor the Election/Restriction Requirement issued by the Examiner. Further still, Applicant retains the right to file a divisional application including claims cancelled from the present application.

PRIOR ART REJECTIONS

Claim Rejections under 35 U.S.C. §102(b)

Claims 1, 10 and 17 stand rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Miyama et al. (U.S. Patent No. 5,574,991, herein after referred to as "Miyama"). Applicant respectfully traverses this rejection.

On page 5 of the outstanding Office Action, the Examiner submits that Miyama allegedly teaches "a plurality of user operable control members", as set forth in claim 1, citing the "lower left item 3a in figure 5" (see page 5, of the outstanding Office Action). However, Applicant respectfully disagrees with the Examiner's conclusion.

With regard to Fig. 5 (of Miyama), a multiplexer 3 includes three input terminals corresponding to three input control signals 3a. The multiplexer selects one of six level-setting steps in 4 dB per step in response to one of the control signals 3a.

However, Applicant respectfully submits that Miyama makes no mention or suggestion of any "user operable control members", as set forth in claim 1. Instead, Miyama explicitly states that element 3a (of

FIG. 5) merely represents "control signals" (see col. 3, ll. 49-52). Further, at most, the control signals 3a are input to multiplexer 3 via three control signal input terminals (see col. 1, ll. 46-47, Applicant notes that Miyama's discussion of FIG. 1 is applied to FIG. 5, see col. 3, ll. 20-21). Accordingly, Applicant respectfully submits that the control signals 3a of Miyama are, at most, merely control signals and not "user operable control members", as set forth in claim 1. As such, Applicant respectfully asserts that Miyama fails to teach or suggest all of the limitations as set forth in claim 1.

Further, with regard to independent claim 10, as discussed above, Miyama, at most, arguably discloses input control signals 3a. However, Miyama is silent with regard to the origination or adjustment of these control signals. Accordingly, the control signals 3a (of Miyama) are not the "user operable control signals", as set forth in claim 10.

As such, Applicant respectfully requests withdrawal of the above rejection.

Claim Rejections under 35 U.S.C. §103(a)

Claims 1-15 and 17 stand rejected under 35 U.S.C. §102(b) as allegedly being unpatentable over Rasmusson (U.S. Patent No. 5,514,432) in view of Ostman et al. (U.S. Patent No. 5,786,782, hereinafter referred to as "Ostman"). Applicant respectfully traverses this rejection, especially in view of claim 1 as now amended.

Limitations of Claims 1 and 10 are Lacking

FIG. 6, of Rasmusson, illustrates a circuit for controlling the volume of a speaker 695 including a microprocessor 680, and a receive digital signal processor 670, and volume controls 615. In operation, the microprocessor 680 senses or detects the setting of the volume controls 615 and informs the receive digital signal processor 670 of the selected volume. The digital signal processor then adjusts the volume accordingly.

However, Applicant respectfully submits that Rasmusson fails to teach or suggest at least an external signal processor arranged "externally to the control module", as now set forth in claim 1. Instead, as shown in FIG. 6 and discussed above, the digital signal processor 670 and the microprocessor 680, are both included within the volume control circuit, and not arranged "externally to the control module", as now set forth in claim 1. As such, Applicant respectfully submits that the digital signal processor 670 nor the microprocessor 680 are the "external signal processor", as now set forth in claim 1.

Further, the Examiner acknowledges that Rasmusson fails to teach or suggest at least a "multiplexed control signal" for controlling "operation parameters", as set forth in claim 1, and relies upon Ostman for allegedly teaching this limitation. However, Applicant respectfully asserts that even assuming *arguendo* that Ostman could be combined with Rasmusson (which Applicant does not admit for at least the reasons

set forth below), Ostman would still fail to at least make up for the deficiencies of Rasmusson with regard to claim 1, especially in view of claim 1 as now amended.

Accordingly, Applicant respectfully submits that neither Rasmusson nor Ostman, either alone or in combination, teach or suggest all of the limitations as set forth in claim 1. As such, Applicant respectfully requests withdrawal of the above rejection.

Lack of Motivation to Combine References

Further, Applicant submits that the Examiner has not supplied requisite evidence to establish a prima facie case of obviousness under 35 U.S.C. §103(a).

As discussed above, the Examiner acknowledges that Rasmusson fails to teach or suggest, "multiplexing volume control inputs" (see page 6 of the outstanding Office Action), but alleges it would have been obvious to the skilled artisan to "modify the invention as taught by Rasmusson to use MULTIPLEXING as taught by Ostman" (see page 6 of the Outstanding Office Action). However, the Examiner does not cite any motivation for combining the teachings of Rasmusson and Ostman, but instead the Examiner submits that it would have been obvious to combine Rasmusson with Ostman "for the benefit of reducing the number of components need for controlling the volume of mobile phone,

as well as, saving money since fewer components are needed" (see page 7 of the outstanding Office Action).

However, Applicant strongly disagrees with the Examiner's conclusion. This reasoning by the Examiner is a classic "could have" combined argument: The test for obviousness, however, is "would have." The Examiner has provided no reason as to why one of ordinary skill in the art would have combined the teachings of Rasmusson with the teachings of Ostman. Further, the mere fact the Rasmusson is directed to a problem somewhat similar to that of the claimed invention (e.g., volume control), is reason enough why one of ordinary skill in the art would not have modified the teachings of Rasmusson with the teachings of Ostman. That is, the fact that Rasmusson recognized the need for controlling speaker volume, and chose not to multiplex the volume control inputs is reason enough why the skilled artisan would not have modified the teachings of Rasmusson with the teachings of Ostman. Further still, Rasmusson illustrates only one volume control input from the volume control input to the microprocessor 680, from the microprocessor 680 to the receive digital signal processor 670, and subsequently to the speaker 695. Accordingly, modifying Rasmusson with the teachings of Ostman is unnecessary and thus would not have been obvious to one of ordinary skill in the art at the time the invention was made.

Accordingly, Applicant submits that the Examiner has not supplied evidence of the necessary motivation needed to lead one of ordinary skill in the art to combine the teachings of Rasmusson and Ostman as set forth in two cases decided by the Court of Appeals for the Federal Circuit (CAFC), *In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed.Cir. 1999) and *In re Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed.Cir. 2000). Instead, it appears the Examiner has made use of impermissible hindsight reconstruction. It appears the Examiner has used the present application as a blueprint, searched the prior art for missing elements (e.g., multiplexing signals as allegedly taught by Ostman) and then alleged that Rasmusson could be combined with Ostman to include the missing elements without identifying or discussing any specific evidence of motivation to combine Rasmusson with Ostman.

As such, a prima facie case of obviousness has not been properly established, and thus Applicant respectfully requests that this rejection be withdrawn.

CONCLUSION

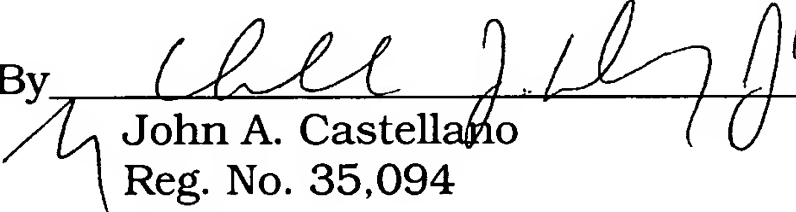
In view of above remarks, reconsideration of the outstanding rejection and allowance of the pending claims is respectfully requested.

If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone Andrew M. Waxman, Reg. No. 56,007, at the number listed below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

HARNESS, DICKEY & PIERCE, PLC

By  37,713
John A. Castellano
Reg. No. 35,094

JAC/AMW:jcp


P.O. Box 8910
Reston, VA 20195
(703) 668-8000